Met Office

NEWS

New directors for national climate science partnership

Author: Press Office
09:00 (UTC) on Tue 12 Dec 2023

Leading UK climate science organisations are driving forwards a national alliance focused on climate solutions for society, led by new co-directors Professor Cath Senior and Professor Michael Meredith.

The UK National Climate Science Partnership (UKNCSP) brings together Natural Environment Research Council (NERC) supported research centres, and the Met Office, to respond to threats posed by our rapidly changing climate.

Professor Michael Meredith, an oceanographer from the British Antarctic Survey and Professor Cath Senior, a leading climate scientist at the Met Office, have recently joined the partnership and will lead the next phase of the initiative.

The UKNCSP members are combining their capabilities in climate change observation, prediction and impacts. The partnership is building multidisciplinary collaborations that are required to develop and evaluate climate solutions.

Scientific advice for mitigation and adaptation

Recognising the urgency of climate action, in the context of the 2023 United Nations Climate Change Conference – COP28, the partnership is playing an important role in embedding scientific advice in the government's climate mitigation and adaptation plans.

The partnership is working with public and private sectors to ensure that decision makers and business leaders have access to the climate information they need, in order to manage the risks of extreme weather events, meet net-zero targets, and build a climate-resilient UK over coming decades.

"Climate change is the biggest threat facing humanity in the 21st century. The scale of the problem demands a large, coordinated response, and UKNCSP will draw on the expertise and capability of leading research institutes to better understand and predict climate change, and to develop more useful and usable solutions. I look forward to contributing to this initiative, and helping make a difference in how we respond to this threat," explains Professor Michael Meredith, Co-Director of the UKNCSP, an oceanographer at the British Antarctic Survey and the University of Cambridge.

Professor Cath Senior, Co-Director of the UKNCSP, and a climate scientist at the Met Office, says: "I am delighted to welcome Professor Meredith to UKNCSP, and together I believe we can build on the good progress already made under our initial activities around making the full use of climate observations, coordinating new global climate projections to support the next Intergovernmental Panel on Climate Change assessment, and building partnerships to support the provision of future climate information for the UK."

The partnership aims to enhance the UK's capability, by extending observational and modelling approaches, developing the use of new technologies, establishing major programmes of trans-disciplinary research and providing training for a new generation of policy and decision-makers and expert intermediaries.

What has the UKNCSP been doing, and what is next?

The UKNCSP is engaging with UK and devolved government, public and private sector decision makers, and the wider UK science community, to establish future needs for the national capability in climate science and the requirements and opportunities to build an effective climate decision value chain.

The UKNCSP, since its initiation in 2021, has been coordinating and strengthening the UK's research activity on simulating and predicting climate change and its impacts. The partnership continues to work on enhancing the sustained networks of observations, which are critical for understanding and tracking climate change.

Alongside, the UKNCSP team are forging new routes for the use of climate information. Over the coming months, the UKNCSP will press on with this work and look to explore new activities that catalyse climate science and its use across all sectors of society.

How is the UKNCSP different to previous ways of working?

The UKNCSP aims to enhance the UK's climate science capabilities and build multidisciplinary collaborations that are required to meet emerging needs for climate policy advice and solutions to the challenges of net-zero and building climate resilience in the UK.

The Met Office and NERC-supported research centres have a long history of productive collaboration in climate science – particularly in numerical climate modelling. The partnership builds on these strong foundations to integrate key observational capabilities with models to more effectively monitor and predict the evolving UK and global climate, and emerging impacts of climate change. It is forging partnerships with experts in other science areas, such as agriculture, health, economics, engineering and human behaviour, to develop the evidence required to inform solutions.

What will the UKNCSP offer government and public sector organisations?

The UKNCSP aims to play a leading role in developing an end-to-end "climate decision value chain" that connects climate data and analysis of vulnerabilities, impacts and risks directly to the design and assessment of policy options. This will enable a clear line of sight from climate science to policy impact and ensure that UK decision makers benefit from the UK's investment in its world-leading science and cutting-edge technologies, and from up-to-date multidisciplinary scientific advances.

What can businesses expect from the UKNCSP?

Businesses increasingly are rising to the challenges and opportunities of climate change. To do so effectively, they need robust information – informed by the latest observations and models – about the impacts of climate change on assets and operations, and the associated risks. The UKNCSP aims to ensure that the UK science community is at the forefront of providing this climate information, including by working with partners to ensure that information is made available in decision-relevant forms.

How can universities contribute to the UKNCSP?

Building strong partnerships with UK universities is a high priority for UKNCSP. University experts already make vital contributions to the UK's capabilities in climate science. The UKNCSP aims to enhance existing collaborations as well as building new multidisciplinary collaborations that are required to address emerging needs for climate policy advice and solutions. Engaging with UK universities and the wider UK science community is a key activity for the partnership.

Who are the UKNCSP members?

The UKNCSP brings together NERC-supported research centres and the Met Office. The NERC-supported research centres are: British Antarctic Survey, British Geological Survey, National Centre for Atmospheric Science, National Centre for Earth Observation, National Oceanography Centre, and UK Centre for Ecology & Hydrology.

Watch our video to find out how the UK National Climate Science partnership is working to respond to threats posed by a rapidly changing climate, by putting climate science at the forefront of the solutions agenda.

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